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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/993,492 | 11/27/2001 | Hongyong Zhang | 740756-2394 | 1546 |

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EXAMINER

KEBEDE, BROOK

ART UNIT

PAPER NUMBER

2823

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,492

Applicant(s)

ZHANG ET AL.

Examiner

Brook Kebede

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/160,908.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,4. 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/160,908, filed on December 3, 1993.

Specification

2. The disclosure is objected to because of the following informalities:

The specification recites "boron-silicated glass such as **coning** No. 7059 (hereinafter referred to as **coning** 7059)" in page 2, lines 16 and throughout. It seems phrase "coning" is typo and applicants advised to change it to --**corning**--. Applicants advised to make appropriate similar changes throughout the specification. Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --METHOD OF MANUFACTURING A THIN FILM TRANSISTOR DEVICE--.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 5,403,72. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

The claimed subject matter of the instant application, i.e., "A method of manufacturing a semiconductor device comprising the steps of: forming a semiconductor film comprising silicon over a substrate; first crystallizing the semiconductor film comprising silicon in an atmosphere comprising oxygen; and second crystallizing the semiconductor film comprising silicon in an atmosphere comprising hydrogen," as recited in claim 1, "A method of manufacturing a semiconductor device comprising the steps of: forming a semiconductor film comprising silicon over a substrate; first crystallizing the semiconductor film comprising silicon in an atmosphere comprising oxygen; and second crystallizing the semiconductor film comprising silicon in an atmosphere comprising nitrogen," as recited in claim 6, "A method of manufacturing a semiconductor device comprising the steps of: forming a semiconductor film comprising silicon over a substrate; first crystallizing the semiconductor film comprising silicon in an atmosphere comprising oxygen; and second crystallizing, the semiconductor film comprising silicon in an atmosphere comprising hydrogen, wherein each of the first and the second crystallizing steps is conducted at a temperature between 500 and 800°C," as recite in claim 11, "A method of manufacturing a semiconductor device comprising the steps of: forming a semiconductor film comprising silicon over a substrate; first crystallizing the semiconductor film comprising silicon

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in an atmosphere comprising oxygen; and second crystallizing the semiconductor film comprising silicon in an atmosphere comprising nitrogen, wherein each of the first and the second crystallizing steps is conducted at a temperature between 500 and 800 °C,” as recited in claim 16, “A method of manufacturing a semiconductor device comprising the steps of: forming a semiconductor film comprising silicon over a substrate; selectively forming a cover film over the semiconductor film comprising silicon; first crystallizing the semiconductor film comprising silicon in an atmosphere comprising oxygen; and second crystallizing the semiconductor film comprising silicon in an atmosphere comprising hydrogen,” as recited in claim 21, and “A method of manufacturing a semiconductor device comprising the steps of forming a semiconductor film comprising silicon over a substrate; selectively forming a cover film over the semiconductor film comprising silicon; first crystallizing the semiconductor film comprising silicon in an atmosphere comprising oxygen; and second crystallizing the semiconductor film comprising silicon in an atmosphere comprising nitrogen,” as recited in claim 28, is claimed in claims 1-27 of U.S. Patent 5,403,772.

Furthermore, the claimed limitations of claims 2-5, 7-10, 12-15, 17-20, 22-27, and 29-34 within the scope of the claimed limitations in claims 1-27 of U.S. Patent 5,403,772.

Claims 2-5, 7-10, 12-15, 17-20, 22-27, and 29-34 also rejected as being dependent of the rejected independent base claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Yamazaki et al. (US/5,296,405), Yamazaki et al. (US/5,313,076), Yamazaki et al. (US/5,692,869), Yamazaki et al. (US/6,177,302), Yamazaki et al. (US/6,261,877), Yamazaki et


al. (US/6,271,066), Yamazaki et al. (US/6,423,586), and Zhang (US/6,486,495) also disclose similar inventive subject matter.

Correspondence

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (703) 306-4511. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (703) 306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Brook Kebede

July 3, 2003



**W. David Coleman
Primary Examiner**